

REMARKS:

- 1) Referring to item 10) of the Office Action Summary, please approve the drawings originally filed on April 13, 2004.
- 2) The original claims 1 to 15 were essentially a literal translation of corresponding foreign claims. The claims have now been amended in an editorial and formal manner to avoid certain influences of the original direct literal translation, to clarify and streamline the claim language for US purposes, and generally to better adapt the claim style to US practice. These amendments do not introduce any new matter and do not change the intended scope of the inventive subject matter. Namely, these amendments are not submitted for reasons of patentability, but rather for reasons of US claim style. Entry and consideration of the claim amendments are respectfully requested.
- 3) New claims 16 to 20 have been added. These claims have been drafted "from the ground up" as a fresh approach at covering the inventive subject matter, with different claim style, format and terminology in comparison to the original literally translated claims. Claim 16 is supported by the subject matter of original claim 1, claim 17 is supported by the drawing figures, claim 18 is supported by original claim 2, claim 19 is supported by original claim 3, and claim 20 is supported by original claims 1 and 7. Thus, the new claims do not introduce any new matter. Entry and consideration thereof are respectfully requested.

4679/WFF:he

- 16 -

- 4) Referring to section 1 on page 2 of the Office Action, the original translated Abstract of the Disclosure has been rewritten to better comply with US requirements. Withdrawal of any objection in this regard is respectfully requested.
- 5) Referring to section 2 on page 2 of the Office Action, the informality objection to claims 1 to 15 has been addressed in the present amendment. Each of the points raised by the Examiner has been corrected or avoided in the amended claims. It is noted that claims 1 to 6 are directed solely to the electric contact by itself, while claims 7 to 15 are directed solely to the housing by itself. In claims 1 to 6, description of the housing is merely the "operating environment" with which the claimed electric contact is adapted to cooperate in a certain specified manner. On the other hand, in claims 7 to 15, description of the electric contact is merely the "operating environment" with which the claimed housing is adapted to cooperate in a certain specified manner. In each set of claims, the recitations of the claimed invention (i.e. the contact or the housing) being adapted to cooperate in a particular manner with the respective "operating environment" cannot be ignored but must be considered as a further definition of the claimed invention. See e.g. In re Venezia, 189 USPQ 149, 150, 152 (CCPA 1976); Ex parte Conner, 215 USPQ 384 (PTO Brd. App. 1981); and Orthokinetics Inc. v. Safety Travel Chairs Inc., 1 USPQ2d 1081, 1082, 1088 (Fed. Cir. 1986). Withdrawal of the objection to claims 1 to 15 is respectfully requested.

6) Referring to section 4 on page 3 of the Office Action, the rejection of claims 1 to 6 as obvious over US Patent 3,474,380 (Miller) in view of US Patent 6,129,565 (Lai) is respectfully traversed.

7) In the electric contact according to present claim 1, the contact tab comprises a baseplate and a contact plate formed by folding a part of a blank so as to overlap the plates in the thickness direction. Such a configuration is exemplified and can clearly be seen in present drawing Figures 1 to 6, 15, 22 and 26.

In contrast to the present invention, the two plates (28, 34) of the electrical connector according to Miller are NOT overlapping in the thickness direction. Instead, the upper and lower plates (28, 34) are spaced far apart from one another and are connected by a loose U-shaped bend (32, 52) (col. 2 line 44) rather than a fold.

In the present invention, a purpose of the folded overlapping structure of the tab formed by two overlapping plates is that the two plates reinforce one another by doubling the relatively thin material of the blank, so that the resulting overlapped doubled tab has sufficient strength. On the other hand, in the electrical connector according to Miller, the U-shaped bend (32) connects together the upper arm (28) with the lower contact arm (34) so as to purposely provide resilient spring-flexing of the two arms relative to one another (col. 2 lines 38 to 62; col. 3 lines 1 to 11; etc.) Thus, a person of ordinary skill in the art reading the Miller disclosure would not even have been motivated to construct a tab including a base

plate and a contact plate formed by folding a blank so as to overlap the plates in the thickness direction, because such an overlapping structure would have been directly contrary to the intended spring flexibility according to Miller.

- 8) Furthermore, the electric contact according to present independent claim 1 includes a protruding part that protrudes from an end of the base plate beyond the end of the contact plate.

The electric contact is defined as being adapted to cooperate with the housing in such a manner, so that the protruding part of the base plate is fitted in and held by the housing so that the tab does not lift from the housing in the thickness direction. This defined interaction or cooperation of the claimed invention (i.e. the contact) with its "operating environment" (the housing) cannot be ignored but must be considered as a further definition of the claimed invention. See e.g. In re Venezia, 189 USPQ 149, 150, 152 (CCPA 1976); Ex parte Conner, 215 USPQ 384 (PTO Brd. App. 1981); and Orthokinetics Inc. v. Safety Travel Chairs Inc., 1 USPQ2d 1081, 1082, 1088 (Fed. Cir. 1986).

Contrary to the present invention, the alleged protruding part (50) of the electrical connector according to Miller is NOT adapted to cooperate with the housing in such a manner. Instead, the protruding element (50) of Miller is arranged and adapted to make initial contact with an electrode (42) of a mating electrical connection structure (39, 40) (col. 3 lines 20 to 29).

Miller does not suggest that the electric contact should be configured, arranged and adapted so that the protruding part of the base plate is fitted in and held by the housing so that the tab of the contact does not lift from the housing. To the contrary, the protruding element (50) is not fitted in but rather is free from the housing, and is not held by the housing but rather is freely deflectable, so that the tab (28, 34) purposely deflects and lifts from the housing in the thickness direction (see the transition from Fig. 2 to Fig. 3).

- 9) The Examiner has referred to Lai only with regard to a wire crimping barrel at an end of an electrical contact. Even with such teachings regarding a wire crimping barrel combined with the electrical contact of Miller, the present invention would not have been suggested in view of the above discussed deficiencies of the Miller disclosure. It is noted that Lai further suggests a contact tab formed by folding two plates of a blank. Nonetheless, as discussed above, Miller expressly requires a loose U-shaped bend to provide springy flexibility between the two plates, so the teachings of Lai relating to folded overlapping plates would not have been compatible with the teachings of Miller. Also, the protruding element (50) taught by Miller would have had no purpose in the folded overlapping plate tab according to Lai, because the protruding element (50) only serves its intended purpose in connection with the springy flexibility of the U-shaped bend (32) of Miller.

- 10) For the above reasons, the invention of present independent claim 1 would not have been obvious over the prior art. The dependent claims recite additional features that further distinguish the invention over the prior art. For example, claim 2 recites that the base plate and the contact plate of the tab are folded relative to one another along a fold boundary line that extends in the depth direction. The depth direction has been defined in claim 1 as being the direction in which the tab extends from the contact body having the barrel. To the contrary, the U-shaped bend according to Miller and the fold according to Lai extend transversely to such a depth direction.
- 11) For the above reasons, the Examiner is respectfully requested to withdraw the rejection of claims 1 to 6.
- 12) It is noted that claims 7 to 15 have not been rejected over the prior art. In view of the present amendment which formally improves and clarifies these claims to overcome the objection, and the lack of any prior art rejection, these claims should now be allowable.
- 13) New claims 16 to 20 also patentably define the invention over the prior art. Claim 16 is directed to the electric contact by itself, and defines the configuration and arrangement of the contact tab with its base plate, contact plate and protruding part, in contrast to the disclosures of the references. Claim 20 is directed to an electric plug connector including a combination of an electric contact and a housing. The

4679/WFF:he

- 21 -

interaction of the contact and the housing (whereby the protruding part of the contact is held in the housing) is expressly defined. Favorable consideration of these claims is respectfully requested.

- 14) Favorable reconsideration and allowance of the application, including all present claims 1 to 20, are respectfully requested.

Respectfully submitted,

Keiji KURODA et al.
Applicant

WFF:he/4679
Enclosures:
Transmittal Cover Sheet
Term Extension Request
Form PTO-2038

By Walter F. Fasse
Walter F. Fasse
Patent Attorney
Reg. No.: 36132
Tel. 207-862-4671
Fax. 207-862-4681
P. O. Box 726
Hampden, ME 04444-0726

CERTIFICATE OF FAX TRANSMISSION:

I hereby certify that this correspondence with all indicated enclosures is being transmitted by telefax to (571) 273-8300 on the date indicated below, and is addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Walter F. Fasse 9/2/05
Name: Walter F. Fasse - Date: September 2, 2005